

REMARKS

Claims 1-15, 20-26 are pending in this application. Claims 16-19 have been canceled above, without prejudice or disclaimer. The amendments to claims 1 and 20 expresses in the body of the claim what already was implicit from the claim's preamble. As to the amendment to claim 8, see original claim 6. As to new claim 26, see Applicants' specification at page 8, lines 9-10.

At page 2, paragraph 2 of the office action, claims 1-3, 6-19 and 25 have been rejected under 35 U.S.C. 102(b) as anticipated by Brindoepe et al. (US Pat. No. 5,344,897).

Applicants respectfully traverse.

First, Brindopke does not disclose carbonating an epoxidized vegetable oil. What Brindopke is disclosing to react with carbon dioxide is more limited than all of the epoxides (which introduced at col. 1, lines 35-36 as mono- and polyepoxides) mentioned in Brindopke's columns 1-2. It is only with regard to the polyepoxides that Brindopke discloses the possibility of reaction products with carbon dioxide. Brindopke states: "Instead of the polyepoxide compound, reaction products thereof with CO₂ can also be employed." Brindopke considers soybean oil and linseed oil as "epoxidized fatty acid derivatives" (col. 2, lines 36-37). Brindopke does not treat the epoxidized fatty acid derivative materials as polyepoxides and is not referring to the epoxidized fatty acid derivatives at col. 2, line 54 when he specifically discusses an alternative to "the polyepoxide compound."

Moreover, Brindoepe fails to teach that a carbonated vegetable oil that is "a monomeric functionalized oil" is produced.

Also, Brindopke teaches that it is advantageous to modify the polyepoxides from the "epoxidized fatty acid derivatives" to produce better films (paragraph beginning col. 2, line 65 through col. 3, line 2). Thus the technology of Brindopke further differs from Applicants' invention.

Applicant's claim 1 thus is distinguished over Brindopke for those

several reasons.

Brindoepe fails to teach the absence of any significant side reactions, and thus fails to disclose Applicant's claims 6 or 8.

As to independent claim 25, Applicants respectfully traverse. Brindoepe fails to teach or disclose a "nonisocyanate" polyurethane network as recited in Applicants' claim 25.

Applicants' claims therefore are distinguished from Brindoepe and not anticipated. Wherefore, reconsideration and withdrawal of the anticipation rejection based on Brindoepe are respectfully requested.¹

At page 4 of the office action, claims 4 and 5 have been rejected under 35 U.S.C. 103(a) as unpatentable over Brindoepe in view of December et al. (US Pat. No. 6,471,843). The Examiner admits that Brindoepe fails to teach use of a catalyst.

Applicants respectfully traverse this obviousness rejection. Brindoepe and December are not reasonably combinable as the Examiner has proposed.

December is directed to cathodic electrocoats. The Examiner has cited that part of December, Example 1, Part (A), in which glycidyl ester of neodecanoic acid and TTAB are heated under carbon dioxide pressure. Nothing about December itself draws focus to TTAB; it is only because the Examiner, instructed by Applicants' claim 5, knows to look for TTAB that he cites December with regard to TTAB. However, to a person of ordinary skill in Applicants' art reading December, the December patent is not about TTAB. Moreover, such a person of ordinary skill in the art would view December's Example 1 as standing alone, and not combinable with any of the Brindoepe examples. There would be no natural linking factor that would cause such a person to make any connection between Brindoepe and December.

¹Nor is Applicants' claimed invention obvious over Brindoepe. None of Brindoepe's Examples is particularly close to the present invention. No example in Brindoepe is directed to any vegetable oil.

Further, December has nothing instructive to say about when and how to use TTAB. December is not directed to teaching about TTAB. December only in passing makes limited mention that TTAB has been used in his particular Example 1.

Moreover, the reagent of December's Example 1, glycidyl ester of neodecanoic acid, is not a reagent in any of Brindoepeke's examples. Thus, a person of ordinary skill in Applicants' art would not see Brindoepeke and December as combinable as the Examiner proposes. That December used TTAB in heating glycidyl ester of neodecanoic acid under pressure with carbon dioxide is not pertinent to what a person may think about adding TTAB when neither a glycidyl ester neodecanoic acid, nor carbon dioxide, are even being used. Brindoepeke's Examples A1 - A4 use different glycidyl ethers (not the glycidyl ether mentioned in December's Example 1) and do not involve carbon dioxide. When Brindoepeke uses carbon dioxide, in Example A5, it is with an epoxy resin based on bisphenol A and the carbon dioxide is not mentioned to be under pressure. Thus, the Examples of Brindoepeke and December are talking about different reagents, and different pressure conditions. A person of ordinary skill in the art is not drawing from December's Example 1, part A any sort of teaching to apply to Brindoepeke, because there are too many differences between the respective sets of Examples to bring him to such a combination.

The obviousness rejection thus is based on assumptions which are not in order. For example, the Examiner assumes that such a person would focus on a non-Example part of Brindoepeke, which is not a valid assumption and cannot be imputed reasonably to the person of ordinary skill in the art. Additionally, the Examiner's assumption about what importance and meaning a person of ordinary skill would attach to December's use of TTAB is not valid.

Also, even with Brindoepeke and December, the person of ordinary skill in Applicants' art still falls short of the present invention. None of Brindoepeke's examples are close to Applicants' claims 4 and 5. A person of ordinary skill in

Applicants' art is highly influenced by examples in a patent. A person of ordinary skill in the art would pay attention to Brindoepe's examples, and would lack motivation to make so many modifications, namely, he would be unmotivated to both vary away from Brindoepe's own examples and to try to somehow apply some part of December, whether December's Example 1, Part (A) or some other part of December. What the Examiner suggests as to Brindoepe and December is a hindsight reconstruction, and not how the person in the art would think. Given the respective Examples of Brindoepe and December, it is quite clear that the person of ordinary skill in Applicants' art would not arrive at the invention of Applicants' claim 4 or 5 from those two patents.

Wherefore, reconsideration and withdrawal of the obviousness rejection of claims 4 and 5 based on Brindoepe are respectfully requested.

At page 4, paragraph 5 of the office action, Claims 20-24 have been rejected under 35 U.S.C. 103(a) as unpatentable over Brindoepe in view of Whelan et al. (US Pat. No. 3,072,613). With regard to Applicants' independent claim 20, the Examiner admits that Brindoepe fails to disclose an amine having a functionality of at least two.

Applicants respectfully traverse this obviousness rejection.

Brindoepe is more removed from Applicants' claimed invention than the Examiner has recognized. Brindoepe fails to teach a method of making a nonisocyanate polyurethane network and lacks any Example to a nonisocyanate polyurethane network. No Example in Brindoepe uses a carbonated vegetable oil.

A person of ordinary skill in Applicants' art knows that conventionally polyurethanes have been made using isocyanates. Such a person in Applicants' art also knows that a newer field has emerged, of producing polyurethanes without using isocyanates, to produce nonisocyanate polyurethanes (NIPUs). The Brindoepe patent is not particularly directed to polyurethane networks, but

clearly Brindoepe is part of the older technology that makes no effort to avoid isocyanates. Brindoepe teaches use of isocyanates in his processes. Clearly Whelan is the older type of technology, which makes no effort to avoid isocyanates. Neither Brindoepe nor Whelan contains the teaching of a "nonisocyanate" polyurethane network or to avoid isocyanates.

Moreover, the product of Whelan's invention (polyurethanes produced from cyclic carbonates and amines) substantially differ from Applicant's invention in that Whelan teaches that brittle, inflexible polymers result if the polymerization temperature is above 30° C.

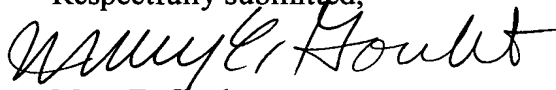
Wherefore, reconsideration and withdrawal of the obviousness rejection of claims 20-24 are respectfully requested.

In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 1-15, 20-26 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephone or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,



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